



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

*T-D*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/262,628	03/04/99	HORN	J 52075USA5A

JAMES D CHRISTOFF  
3M OFFICE OF I P COUNSEL  
P O BOX 33427  
ST PAUL MN 55133-3427

IM52/1005

EXAMINER

ZITOMER, F

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 10/05/01

*11*

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/262,628

Applicant(s)

Horn et al.

Examiner

Fred Zitomer

Art Unit

1713



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jul 30, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above, claim(s) 5, 6, 9, 11, and 24-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 8, 10, and 12-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

Art Unit: 1713

1.

This responds to the communication of July 30, 2001. All the rejections of record in the prior Office action are maintained for the reasons given below. A new rejection under 35 USC 112 first paragraph is given in view of applicant's amendments as stated below. No claim is allowed.

2.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3.

Claims 1-4,7,8,10 and 12-23 rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A definition of the term "fluoroplastic" which allegedly distinguishes the materials of the claimed articles and which is critical or essential to the practice of the invention, is not included in the claims and is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

4.

Claims 1-4,7,8,10 and 12-23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for specified fluoropolymers and amounts thereof, does not reasonably provide enablement for the multiplicity of polymers and amounts thereof within the claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with

Art Unit: 1713

these claims. Claims 1 and 12 for example read on any orthodontic article containing any amount of any fluoropolymer. The possible combinations are unlimited. For example an article made of an acrylic polymer containing 1 ppm of a cyclic polyfluorocarbon is within the claims. Claim 17 is slightly less broad but still encompasses a limitless number of polymers containing a mere trace of the instant fluoropolymers.

5.

Claims 1-4,7,8,10 and 12-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammar et al., US 5,461,133, taken with Pustka, US 4,323,956.

Hammar teaches using the present fluoropolymers in orthodontic articles because of their physical properties, stain resistance and aesthetics [column 5, line 58 - column 6, line 37]. Pustka teaches the suitability of said polymers in light fixtures because of their good physical and optical qualities [column 4, line 32 - column 5, line 42]. The polymers exhibit good transmittance qualities over the entire visible spectrum [column 4, lines 49-51], i.e. from about 400 to 800 nm. Neither reference teaches the specific transmittance and color shift values now being claimed. It would have been obvious to prepare orthodontic articles of the instant fluoropolymers in the expectation of realizing the transmittance and color shift values herein because the polymers, their suitability for orthodontic articles and their advantageous optical properties over the entire visible spectrum were known at the time of the instant invention. Further, it is deemed pertinent that all of the instant fluoropolymers are chemicals of commerce used as received absent a showing on this record of treatment by applicant which would enhance transmittance or color shift.

Art Unit: 1713

Accordingly, all optical properties of articles prepared from the fluoropolymers are deemed inherent and not to impact patentability.

6.

Claims 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hammar et al., US 5,461,133.

Hammar teaches orthodontic articles comprising the present fluoropolymers as stated above. The disclosures of Hammar are commensurate with the instant invention.

7.

Applicant's arguments filed July 30, 2001 have been fully considered but they are not persuasive. The essence of said arguments is that the revised "fluoroplastic" language distinguishes the claimed articles from the fluoroelastomers of the references as evidenced by the definitions of Grootaert and applicant's disclosure. This is not compelling for at least the following reasons:

- contrary to applicant's assertion Grootaert fails to afford any definition which distinguishes fluoroplastics from the fluoropolymers of the references relied upon. The reference, which lacks official sanction or authority, merely states that fluoroplastics are a class of fluoropolymers [column 1, lines 10-12].

- applicant's disclosure is conspicuously absent a definition of the term "fluoroplastic".

Art Unit: 1713

- the generally accepted definition of "fluoroplastic" encompasses the present fluoropolymers, viz. copolymers of fluorine-containing monomers. See e.g. *POLYMER TECHNOLOGY DICTIONARY*, Page 161, second column.

- assuming arguendo that the present articles are distinguished by the term "fluoroplastic" nothing on this record shows that the present polymers and those of the references are different.

8.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Zitomer whose telephone number is (703) 308-2461. The examiner can normally be reached Monday through Friday from 7:30 AM to 4:00 PM.

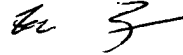
Application/Control Number: 09/262,628

Page 6

Art Unit: 1713

If attempts to reach the examiner by telephone are unsuccessful David Wu can be reached at (703) 308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.



FRED ZITOMER, PHD  
PRIMARY EXAMINER  
ART UNIT 1713

Zitomer/fz  
October 4, 2001